

REMARKS

**I. Status of the Claims**

Upon entry of this paper, claims 67, 69-76, 82-91, 96-102, and 104-119 are pending and subject to examination. And claims 68, 77-81, 92-95, 103, and 120-129 are withdrawn as allegedly drawn to un-elected inventions.

Independent claim 67 has been amended herein to more clearly define that which Applicants consider their invention. Accordingly, there is no issue of new matter or written description.

**II. Claim Rejections - 35 U.S.C. § 102**

Claims 67, 69-76, 82-91, 96, 97, 101, 102, and 104-119 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,153,206 to Anton et al. (Anton). Office Action at pages 2-6. Applicants respectfully disagree and traverse this rejection for reasons in the record and for the following reasons.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. M.P.E.P. § 2131. "The identical invention must be shown in as complete detail as is contained in the ... claim." *Id. (quoting Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989))*. Here, Anton fails to show each and every element in the present claims.

For example, Anton does not teach any polymers comprising the presently claimed first block and presently claimed second block, let alone such a polymer further

comprising the requisite claimed intermediate random copolymer block.

As recited in the present claims, the first block is chosen from: a) a block with a Tg of greater than or equal to 40°C, b) a block with a Tg of less than or equal to 20°C, and c) a block with a Tg of between 20 and 40°C, while the second block is chosen from a category a), b) or c) different from the first block.

In contrast, Anton broadly discloses "an uncrosslinked synthetic polymer comprising a first repeat unit selected from the group consisting of methacrylate ester monomers which, if polymerized, would yield a polymer having a glass transition temperature [Tg] of -10 to 75 °C.; and a second repeat unit selected from the group consisting of methacrylate ester monomers which, if polymerized, would yield a polymer having a glass transition temperature [Tg] in the range of about 76 to 120 °C...." (See, e.g., Abstract.) And Anton only specifically teaches "a copolymer containing about equal parts of isobutyl methacrylate and isobornyl methacrylate". (Examples 1 and 2.) The Tg of a homopolymer of isobutyl methacrylate is 53°C and that of a homopolymer of isobornyl methacrylate is 105°C (Anton, Table at col. 5, ll. 39-54), and thus the only copolymer exemplified in Anton does not satisfy the claim requirements for the first and second blocks, let alone further comprise the requisite claimed intermediate random copolymer block. Indeed, there is no mention of an intermediate block in Anton at all.

The above shows that the Office's assertion that "[t]he composition of Anton meets all of the structural limitations in the claims" at page 6 of the present Office Action is

demonstrably false.<sup>1</sup>

And the fact that, from Anton's broad description of the monomers that could possibly be used, one might be able to pick and choose certain monomers and could possibly combine them in a manner that could read on the present claims does not meet the standard for anticipation, either inherent or express.

As explained in the M.P.E.P., "[t]he fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993) (reversed rejection because inherency was based on what would result due to optimization of conditions, not what was necessarily present in the prior art); *In re Oelrich*, 666 F.2d 578, 581-82, 212 USPQ 323, 326 (CCPA 1981)." M.P.E.P. § 2112 (emphasis in original).

"To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result

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<sup>1</sup> Furthermore, the Examiner's repeated assertion that "a product can not [*sic*, cannot] be separated from its properties" (page 6) is irrelevant: polydispersity index is not a property of the claimed polymer but rather is a structural limitation, such as, for example, describing the molecular weight distribution of a polymer. It is well-known in the art that, which is also recognized by the Federal Circuit *In re Spada*, 911 F.2d 705, 708 (Fed. Cir. 1990), polymers having identical composition require the polymerization of identical monomers, **employing the same or similar polymerization techniques**. Identical monomers alone will not necessarily generate identical polymers. As submitted previously, Anton utilizes a procedure that is different from the procedure employed in this application in preparing the polymers.

from a given set of circumstances is not sufficient.' " *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999). M.P.E.P. § 2112 (emphasis added).

In the present case, Anton's polymers do not necessarily satisfy the requirements for the presently claimed first and second blocks, let alone for the presence of or the claimed requirements for the presently claimed intermediate random copolymer block. And, in addition to those missing teachings, as acknowledged by the Office, "Anton is silent as to the [claimed] percent transfer and the polydispersity index...." (Office Action at 3.)

For the foregoing reasons as well as those already of record, Anton does not anticipate the present claims. Accordingly, Applicants respectfully request that the rejection be withdrawn.

### **III. Claim Rejections - 35 U.S.C. § 103(a)**

#### **A. Anton and Hosotte-Filbert**

Claims 98-100 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Anton in view of U.S. Patent No. 5,681,877 to Hosotte-Filbert et al. (Hosotte-Filbert) for reasons set forth at pages 7-9 of the Office Action. Applicants respectfully disagree and traverse this rejection for reasons already of record and for the following reasons.

As discussed above, Anton does not teach or suggest the requirements for the presently claimed first and second blocks, let alone for the presence of or the claimed requirements for the presently claimed intermediate random copolymer block, or the claimed polydispersity index of a polymer comprising such blocks.

In an attempt to cure the missing teaching or suggestion of the claimed polydispersity index, the Office relies on Hosotte-Filbert for the teaching of "a block co-polymer which comprises blocks of acrylic (or methacrylic) acid and methyl methacrylate". As in Anton, however, Hosotte-Filbert is silent regarding polydispersity index and fails to teach or suggest the claimed Tgs.

What Hosotte-Filbert does teach, however, is a block polymer comprising acrylic acid as one block monomer and methyl methacrylate as another block monomer, both having a Tg greater than 40°C. For that reason alone, Hosotte-Filbert's block polymer falls outside the scope of the presently claimed block polymer which requires at most one, not two, blocks having a Tg greater than 40 °C. Furthermore, Hosotte-Filbert also does not teach or suggest that linking the first and second blocks is a random copolymer block, which is required by the present claims.

As such, Hosotte-Filbert does not rectify Anton's deficiencies. Thus, Anton and Hosotte-Filbert fail to render obvious the present claims, and Applicants respectfully request that the rejection be withdrawn.

**B. Toniu and Aldrich**

Claims 67, 69-76, 82-84, 87-89, 91, 96, 99, 106, 107, 111, 112, 114, and 115 are rejected under 35 U.S.C. § 103(a) as being unpatentable over FR 19730119 to Toniu et al. (Toniu) as evidenced by Aldrich for reasons set forth at pages 9-14 of the Office Action. Applicants respectfully disagree and traverse this rejection for reasons already of record and for the following reasons.

The Office has failed to establish a *prima facie* case of obviousness. Both Toniu and Aldrich are silent as to the claimed polydispersity index. There is no evidence that the polymers described by Toniu inherently have a polydispersity index greater than or equal to 2.5, as currently claimed. As for Anton, as discussed above, the Office has failed to provide the required sound basis for believing that Toniu teaches or suggests the claimed polydispersity index. Rather, the Office relies upon mere conclusory rationale that is against the knowledge in the art, stating that "Toniu renders obvious polymers which are structurally identical to those claimed, wherein it is again noted that a product can not be separated from its properties". The Office thus fails to recognize that polydispersity index itself is a structural attribute, not a property of a polymer.

Furthermore, Toniu only refers to its blocks as lipophilic or hydrophilic blocks. Toniu does not expressly teach or suggest any transition glass temperatures. The Office concludes that Toniu suggests the claimed Tgs by relying on certain specific monomers used in the blocks (e.g., n-vinylpyrrolidone with Tg of greater than or equal to 40 °C for "A", and Lauryl acrylate with a Tg of less than or equal to 20 °C for "B"). However, Toniu also indicates that styrene with a Tg of greater than 40 °C is suitable for the lipophilic block (termed by the Office as "B" block). Thus, when properly viewed in its entirety, Toniu does not teach or suggest the claimed Tgs for blocks. The Office's conclusion constitutes nothing more than the forbidden hindsight analysis. And Aldrich only describes the glass transition temperatures for certain homopolymers.

Thus, Toniu and Aldrich fail to render obvious the current claims as

amended. Accordingly, Applicants respectfully request that the rejection be withdrawn.

**C. Toniu, Aldrich, and Anton**

Claims 108-110 and 116-119 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Toniu as evidenced by Aldrich as applied to claims 67, 69-76, 82-84, 87-89, 91, 96, 99, 106, 107, 111, 112, 114, and 115 and further in view of Anton. Office Action at 14-16. Applicants respectfully disagree and traverse this rejection for reasons in the record and for the following reasons as well.

As discussed above, none of the three references teaches or suggests the claimed polydispersity index. Accordingly, Applicants respectfully request that the rejection be withdrawn.

**IV. Double Patenting**

Claims 67, 70-76, 82-91, 96-102, 104-117, and 119 are provisionally rejected on the ground of obviousness-type double patenting as allegedly being unpatentable over: 1) claims 80, 82, 83, 92, 95, 104, 105, 110, 111, 130, 134-138, 140, 142-157, and 160-165 of copending Application No. 10/529,218; and 2) claims 77, 79, 80, 84, 87-94, 97-107, 111, 114, 123, 124, 129-131, 150, 154, 155, and 157-161 of copending Application No. 10/529,266. Office Action 16-19.

As Applicants' have previously advised the Office, Applicants plan to file an appropriate terminal disclaimer when allowable subject matter is indicated.

**CONCLUSION**

In view of the foregoing remarks, Applicants respectfully request reconsideration and reexamination of this application and the timely allowance of the pending claims.

If there is any fee due in connection with the filing of this Statement, please charge the fee to our Deposit Account No. 06-0916.

Respectfully submitted,

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